Nostalgia, belonging and mattering: an institutional framework for digital collegiality drawn from teachers' experience of online delivery during the 2020 pandemic

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Abstract

This article explores the experiences of two teachers in different institutions (UK and China) specifically selected for this study because of their largely positive institutional experiences of using technology during the first wave of the pandemic in early 2020. Our aim is to understand the emotional outcomes relative to their uses of technology, whilst working from home. In this study, we asked, "what is the role of technology in the affective outcomes of teaching during the pandemic when everyone was at home?" and "Why might teachers feel a sense of nostalgia for a moment of educational crisis?" A proposal was submitted and gained ethical approval from the University of Derby. A qualitative methodology was adopted using semi-structured online interviews and inductive analysis. We address concerns that 'sense of belonging' may be an incomplete account of the emotional landscape arising from the use of technology during this educational emergency. We identify three ways in which technology was used and which made experience (1) flexible (2) communal, and (3) visible. We map these uses onto corresponding emotional outcomes which are (1) mattering (2) belonging (3) nostalgia. As a result, we provide a model of 'E-Motional Good Practice' in support of institutional, and digital collegiality. Finally, we consider implications for university education departments.

Practitioner Notes

1. Institutions can use technology to help people feel like they matter
2. Institutions can use technology to help create a collective sense of belonging
3. Institutions can use technology to help foster a sense of nostalgia
4. Institutions can map their use of technology onto emotional outcomes

Keywords

belonging, nostalgia, mattering, digital collegiality, educational technology, affective, emotional, model, good practice

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Introduction

> *"I don't think we're ever going to forget how we dealt with this and how we helped each other. I think it's going to persist…we're a lot more appreciative of each other and we complain less which is quite nice. We complain less in general."* (China1)

Online learning in Higher Education has grown rapidly over recent decades (Allen, 2020; Stone, 2019) and many educators are well versed in the technologies and pedagogies associated with this mode of delivery which offers both students and tutors the flexibility and convenience of studying at a time, location, and pace of their own choice without interrupting professional and personal commitments (O'Shea et al., 2015). Studying in this potentially nurturing environment allows learners to achieve their academic goals and further develop knowledge and skills required in their chosen vocation (Laurillard, 2012).

The rapid transition to online provision caused by the unexpected Covid 19 epidemic (Dhawan, 2020; Talib et al., 2021) has played a further, vital role in teaching and learning (El Hadef, 2021). This has generated new ways of designing curriculum, delivering theoretical and practical skills, and assessing learning (Daniel, 2020; Sandhu & de Wolf, 2020). However, others claim that more support with pedagogy, technology and mental health is needed (Rashid et al., 2020). Indeed, a survey of 1148 academics in UK universities indicated that the rapid transition to online provision created significant confusion, distress, dysfunctionality and disturbance to the pedagogical roles and personal lives of many 'entry-level' practitioners (UNESCO, 2020; Watermeyer et al., 2021). These frustrations are compounded by poor internet connections and faulty software (Nickinson et al., 2020). Such issues become increasingly problematic if an immediate return to pre-pandemic normality is unrealistic and the need for remote methods of learning persist (Cairney-Hill et al., 2021). This is likely to be true across all sectors of education.

A sense of social belonging can reduce anxiety and stress. Indeed, feeling oneself to be part of a group can contribute towards a '*social cure*' (Haslam et al., 2016; Jetten et al., 2009). Equally, a lack of social belonging has adverse consequences similar to the effects of smoking and alcohol consumption (Cacioppo et al., 2000). Social isolation is associated with impaired memory function and has links to depression with consequences for cognition (Zorzo et al., 2019). As such, a lack of belonging may have an adverse impact upon learning, academic achievement, and wellbeing. In the context of the global pandemic, these threats may be greater for those unfamiliar with learning and teaching from home. Despite these concerns, we argue that any focus solely upon social belonging is inadequate to understand the emotional landscape consequent upon educational uses of technology from positions of physical isolation. During the pandemic, "*the classroom became a psychological entity*" (Bowskill & Norberg, 2021) demanding a richer account of this experience across varied technology-supported settings.

This article contributes to the literature by exploring the experiences of two teachers in different institutions (private and public sector) and different countries (UK and China). These two educators were specifically selected for this study because of their school's largely positive experiences of using technology during the first wave of the pandemic in early 2020. Our aim is to understand the emotional reactions relative to their uses of technology, whilst working from home. We address concerns that sense of belonging may be an incomplete account of the emotional landscape arising from the use of technology during this educational emergency. We focus on the emotional accounts of two teachers and their schools, rather than students, as an additional contribution. We extend this to develop a 'Digital Collegiality' model mapping different emotional outcomes onto specific and 'successful' uses of technology during the pandemic. We suggest this may be evidence of digital collegiality and suggest implications for university education departments.

We make no claims for generalizability in this article, but we do make an argument that this study, and our emergent model, constructs a new agenda for further research which may be applicable in any sector of

education and one which may be equally applicable to staff, students, and institutions. Our model of digital collegiality goes beyond the goal of developing a sense of belonging at the level of an individual. It gets beyond a consideration of belonging in isolation from other emotions. More importantly, the model looks at the institutional level of collaboration and the co-production of collegiality supported by technology. We suggest, when taken together, this may offer new ways to think about learning design, professional development, and organizational learning.

Research context

The University of Derby delivers a range of postgraduate online modules to learners around the world. An institutional system for implementing online learning has been in place for at least a decade, meaning that this area of institutional practice was more resilient when struck by the pandemic. The Innovative 21st Century Teaching module, in which the research participants in the current article were enrolled, is delivered fully online as part of the MA in Education program. This module has been running online for approximately six years. It has lately attracted over 100 participants in each cohort.

Participants enrolled in this online module are typically educators with a classroom-based teaching practice or those with an educational leadership role. In 2020, the online module became a timely and valued source of professional development as our participants took their local practice online at short notice. Prior to the pandemic, their use of technology had been supplemental. It then became a fundamental part of their institutional practice.

Literature review

Despite potential advantages, some students find the online space strange and sometimes threatening (Thomas, 2012b). This is a challenge for universities and other institutions because attrition rates in online courses are typically higher than in traditional, face-to-face programmes (Carr, 2000; Hung, 2021). Online learners can be overwhelmed by the cognitive demands placed upon them and unfamiliar digital technologies (Baxter, 2012; Carter Jr et al., 2020). Being overwhelmed for extended periods is detrimental to achieving long-term learning goals and risking self-esteem (Rice et al., 2019).

Problems relating to well-being, anxiety, stress, and isolation are mitigated by promoting a 'sense of belonging' (Moeller et al., 2020; O'Keeffe, 2013; Raymond & Sheppard, 2017; Stebleton et al., 2014). A student's 'belonging' is defined in terms of their being accepted, respected, valued, supported, and encouraged by teachers and peers (Goodenow, 1993). This is key to a high level of student experience and retention (O'Keeffe, 2013) and important for cultivating collegial relationships (Morrow & Ackermann, 2012). It influences perceptions of 'fitting in' (Hausmann et al., 2009), social connectedness (Besser et al., 2020) or "feeling like just another student" (Vaccaro et al., 2015, p.679). A sense of belonging is vital for academic success in any learning environment and more so in moments of uncertainty such as moving into the strange setting of online education, particularly for first-year students (Morrow & Ackermann, 2012; Strayhorn, 2018).

Others argue that belonging is a common human need, affecting attitudes and patterns of behaviour (Baumeister & Leary, 1995). In classroom settings and campus-based programmes, belonging is usually established and nurtured by frequent face-to-face contact beginning with induction and continuing throughout the semester (Yorke, 2016). As learners become socialised and comfortable in their surroundings, they become connected to their learning (Peacock et al., 2020) with an increased level of motivation to succeed (Meehan & Howells, 2018).

Belonging has been characterised as two mutually inclusive elements: academic belonging and social belonging (Schar et al., 2017). Academic belonging has been linked to learning outcomes and one study found that classroom performance and mastery of goals were positively related to belonging (Walker, 2012). Essential social factors, perceived in another study as influencing a sense of belonging included: creating friendships, friendly interactions, and extracurricular opportunities to connect socially (van Gijn-Grosvenor & Huisman, 2020). However, the definition of belonging is context specific and differs across social and cultural settings (Greenwood & Kelly, 2019).

Belonging can be established over time via online communities of inquiry (Garrison, 2016). Interactions with fellow students promote camaraderie and reduce potential isolation. Bonding with peers establishes a connection with the programme of study thereby reducing anxiety (Thomas, 2012a). Surveys of university students and

staff have shown that staff recognised belonging as important and identified teacher online presence and the facilitation of active learning as essential (Mulrooney & Kelly, 2020). Acting on this premise, small group work, student-generated podcasts, and weekly tutor podcasts were added to an online module to support inclusion and belonging when student numbers doubled during the pandemic (Bowskill et al., 2021). However, any lack of belonging can reduce confidence leading to a reluctance to contribute to learning activities requiring group work (Illeris, 2014).

Educators forced to embrace an unfamiliar mode of teaching were vulnerable to social isolation when working from home during the pandemic. The absence of others and the challenge of maintaining collegial relations from home caused social isolation, anxiety, and reduced motivation towards online learning (de Jong Gierveld et al., 2006; Goksel, 2021). Social isolation was commonly experienced among university staff (Leal Filho et al., 2021) giving rise to novel solutions such as a *virtual huddle* amongst colleagues who briefly socialised online every morning to mitigate isolation (Kotera et al., 2020). That said, some students and tutors prefer to work largely alone and initiatives to promote belonging should respect the countering desire for personal autonomy (Goodenow, 1993).

Methodology

An Interpretivist paradigm, a relativist ontology, and a constructivist epistemology were adopted to explore individual experiences and situated perceptions of teaching online during the first wave of the pandemic early in 2020. This is in keeping with the qualitative methodology used in this study (Brown & Dueñas, 2020).

Participants were all professional educators who had recently completed the 21st Century Innovative Teacher module at the University of Derby. This postgraduate module is fully online and forms part of the MA in Education. This module aims to help educators share practice and make effective use of technology. There were 168 participants in this iteration of the module mainly located across Asia, Europe, Africa, and South America.

The study complied with the ethical requirements of the University of Derby and was formally approved by the university ethics committee. Participants were emailed consent forms which were signed and returned before the interviews began. These self-selected participants were also briefed verbally and given the opportunity to withdraw. Semi-structured interviews were conducted online via Zoom with the 29 participants recruited. These interviews were carried out in July 2020. Participants were asked about their experiences of the pandemic and of the module.

From the set of interviews, two participants were selected as the focus of this current study. The criterion for selection was that both had made specific mention or else confirmed the presence of *nostalgia* as an emotional reaction to their pandemic teaching experience. Both had also reported largely positive experiences of coping with the challenges of the pandemic. One participant taught in a state secondary school in the UK and the other taught in a private language school in China. Interview data were transcribed. Thematic headings emerging from close reading of the transcripts were derived from an inductive approach to analysis (Kiger & Varpio, 2020). These interviewees are not deemed to be representative, and the findings are not viewed as generalizable. We believe the real contribution of this study is in outlining a new agenda for further research based on the model presented in the Discussion below.

Findings

The following themes emerged from our analysis:

- Caring
- Digital legacy
- Visibility of digital practice
- Collaboration
- Nostalgia

Caring

Both participants' schools exhibited caring dispositions in different ways. This included caring for school staff, students, and parents. Pressures exerted upon the schools, from various sources, prompted a sense of mutual

care amongst the staff. For instance, in the UK example, teachers with childcare responsibilities were excused from online work.

> *"we very quickly identified the staff that were simply not able to contribute. They have 3 children at home. We didn't say to them, well you've got to still deliver those lessons…we were all chipping in and all making sure that all of these people were looked after." (UK1)*

Schools were aware of the pressures parents were under to manage jobs and support their children's learning. Aware of this, the UK school changed parent-school communication away from newsletters replacing them with video messages to make communication more accessible and to humanize the school.

> *"showing that we're here and actually to put a face on it…and explaining what we were doing, talking about some of the challenges that we're having" (UK1)*

The school's annual conference was also moved online. Teachers were aware of possible issues of access and took copies of the conference packs in hard-copy delivered by hand to each home.

> *"We did a virtual conference where all the sessions were created and then each student was sent out the conference pack in fact all of our teachers came in and hand delivered the conference packs to the students. That's 248 of them." (UK1)*

Meetings between teachers and Heads traditionally happened after lessons were over. During the pandemic, these were moved to early evenings allowing everyone time to recover after their teaching duties.

> *"I am going to say look go home have a relax, we'll catch up tonight. I'll send you a link at 7pm. I get to see how upset you are. We get to have that conversation but it's probably going to be a more relaxed conversation." (UK1)*

After initially focusing provision on Zoom, the number of live lessons were reduced to alleviate pressure and stress on younger students. Students were then able to work independently the rest of the time. This was done with wellbeing in mind.

> *"We didn't want to overwhelm many of our students, so we only actually did 2 lessons a day for Years 7, 8, 9." (UK1)*

In China, the use of video conferencing for staff meetings prompted a friendlier relationship amongst staff. The use of these technologies flattened the institutional hierarchy creating a caring 'atmosphere'.

> *"We did have staff meetings on Zoom. More conversational than if we had all met at school…. I think some dynamics changed between staff and management because we're all in this weird thing together. So more conversational a lot of asking 'Oh how are you all doing?' You know, to make sure we're all okay."* (China1)

> [The Head has] *invited the entire faculty over for dinner which probably would never have happened before. So, we are all relying on each other. We have bonded. We are doing things for each other that we wouldn't probably not have done before." (China1)*

Digital legacy

Having been tested in the most challenging circumstances, several successful innovations were going to be retained and developed in the post-pandemic environment when staff and students returned to class. In this respect, the pandemic was the cause of innovation in the post-pandemic environment. For example, the use of Zoom in the pandemic, created new ideas for the future.

> *"our book club sessions next year are going to be at 7pm in the evening which we would never have done and it's going to be over zoom and that would never have happened had the pandemic not hit because we just wouldn't have thought like that." (UK1)*

Students in China began using Teams during the pandemic. Prior to the pandemic, activities outside the classroom were neither visible nor manageable beyond giving instructions and deadlines for homework. The experience of using Teams during the pandemic prompted the introduction of new practices for online submissions which could then be monitored flexibly.

> *The network as a whole has continued to use Teams to collect work. That is the biggest change that I've noticed. Prior to that it was tell the kids what to do and then they go home and do it or don't do it and submit it physically. Everyone's on board with the idea of doing it this way. The general consensus is its better. They're not losing their work. There's no way that a student can come to you and say hey I submitted this work and you never marked it."* (China1)

Visibility of digital practice

The pandemic turned what was previously a private practice into a visible and 'public' pedagogy. Creating and sharing digital objects made teaching visible to colleagues, students, and parents which fed into the spread of good practice.

> *"We did share with the whole staff all of the lessons and access to them which meant they were able to observe and click and watch other people's teaching practice and they were able to get ideas from them." (UK1)*

The 'public' nature of digital practice is a significant culture change for teachers, institutions, and the profession. This opening up of practice, arising from the necessity to collaborate during the pandemic, created new forms of community engagement and support as learning became communal.

> *"quite a few parents were actually engaging in the learning too. I've had lots of emails from parents who have just been inspired by the lessons." (UK1)*

Flexibility

Teachers created digital lessons with audio and video embedded to better explain key concepts. These materials were put online and made available to students This had the dual effect of humanizing teaching and allowing learners to move away from fixed time once-only sessions. Outside classrooms, students were able to repeat sessions flexibly as often as necessary.

> *"They get to see you and… hear you and you get that bit of extra help rather than just the worksheet and if there are things they don't understand they can go back and re-watch or they can pause and so on which they can't do in a live setting." (UK1)*

As mentioned above, parents were provided with a video communication from the deputy head which replaced newsletters. Parents were able to carry communications on their phones and watch flexibly at any time or place. This was designed to show the school was aware and compassionate towards families.

> *"they could have just put it on in the background in the morning and listened while they were making their breakfast" (UK1)*

The virtual school conference changed the fixed schedule of the traditional one-day event to one which was flexible. Again, this enabled easier and greater participation at a time when parents were merging work and parenting roles from home.

> *"they have had time to engage with it and they've been able to do it in their own time and because it just wasn't on one day it's been a flexible thing" (UK1)*

Collaboration

Schools recognized it was possible to produce new kinds of content despite or because of new conditions. Teachers collaborated between departments to create digital learning content together which included inter-disciplinary content, professional development content, and training materials. This broke down barriers and increased togetherness.

> *"...the Arts had to collaborate. So, it meant that we didn't have music lessons, drama lessons, art lessons. We actually had The Arts. we actually met as a faculty which we've never done, and we were able to plan a series of lessons together." (UK1)*

Teachers became very pro-social and collegial. They voluntarily helped colleagues if they discovered anything useful and shared it online. These were acts of selflessness despite the additional work involved. The pandemic generated altruism.

> *"...people who had some good ideas were shovelling stuff in there on their own initiative. There's a couple of guys at work who are very much that way. They're very into tech...and they just took it upon themselves to get it done and to help people out as much as possible. They're a good bunch."* (China1)

The pandemic changed practice but there was an important relationship which pre-existed. Teachers already had connections through social media which was then used to maintain communication and share resources. This extended to making training materials in response to calls on social media. This gave a focus and a purpose to previously more general contact.

> *Yes...we've got groups in WeChat...and they were saying: 'Hey guys, if you need something check this out we've just updated the folder we've got this, this, this and this'...they made a video on how to use something called ScreenCast, it was basically a complete how to do it video on how to use this technology and made it themselves and uploaded it.* (China1)

Nostalgia

The shared pandemic experience generated a strong sense of collegiality from collaboration, the production and sharing of digital content, and from communication within and beyond the institution. Collectively, the school

became a hub and online support centre for others. This nostalgia was there in the present moment and both interviewees could already imagine how that nostalgia would manifest itself in future conversations.

> *"Yes. Definitely. Definitely. And I think that will grow… next year exam season when we are all running round like headless chickens again, we're going to be sitting down on an evening again and saying: 'Do you remember…. we will have that: 'Do you remember that time.... we'll have those conversations, I'm sure." (UK1)*

> *"There will be nostalgia. There's almost imminent nostalgia. We're remembering "Oh do you remember when the school was closed?" Stuff like that. It was remembering as an anomaly I suppose."* (China1)

There was a sense of having not only coped but innovated within and beyond the pandemic. Despite, or because of, the school and its staff having been under the greatest pressure as a collective, it heightened the nostalgic reaction. The resulting togetherness and the nostalgia also increased the motivation to do more.

> *"We are going to be doing things that have never been done and we are going to be interacting in ways that we have never imagined. And we are going to be using technology that we didn't even know that existed in March." (UK1)*

Teaching through the pandemic was already recognized as a shared, socially significant moment. It was clear how this had affected everyone and how they would recall this in the future. It influenced identity development.

> *"...emails from our headmaster and the one thing he keeps saying is: 'we're all going to look back on this one day and laugh about it.' The nostalgia is already there in a way because we're already remembering "Hey, remember that time when the school was closed, and we couldn't go to work?"* (China1)

The nostalgia and togetherness may also be the product of time. A key part of this shared nostalgia was the duration of the collaboration. Collaboration with colleagues and families over time was important. The production and co-creation of digital content happened over an expanded period which may be distinct in important ways compared to shorter episodic collaboration.

> *"...if you're forced through it, you're going to look back on it as this thing that happens. It wasn't just this one-day thing. It was this thing that happened over a longer period of time where you had to cope with it and people came together to deal with it. You said, war time mentality."* (China1)

Discussion

The aim of this study is to understand the role of technology and the emotional outcome of those roles during the pandemic. Schools were converted into distance education establishments by the pandemic experience. Digital learning was a collective enterprise, and it changed the way institutions thought about learning and support. Consequently, we sought to understand and model the emotional response experienced by teachers and schools in the first wave of the pandemic as part of this institutional change. Our analysis identified three inter-related emotions: mattering, belonging and nostalgia which map different roles of technology onto their emotional consequences. We argue these emotions are outcomes of the use of technology making experience (1) flexible (mattering), (2) communal (belonging), and (3) visible (nostalgia).

Mattering

> *"Efforts to enhance the personal sense of mattering to others and to a broader community are central to coping efforts and the capacity to maintain a sense of hope that things will indeed get better." (Flett & Zangeneh, 2020)*

Mattering is defined by '*a sense of having added value to self, others, and communities and extends to include a sense that we are similarly valued*' (Prilleltensky, 2020). When we feel that we matter to others, we are more resilient (Huerta & Fishman, 2014) and our well-being is improved (Prilleltensky, 2020). We argue that in these cases, the move to 'distance education' gave people a sense that they mattered. Teachers felt as though they mattered and cooperated to share and create interactive and multimedia digital learning content for families and students. Schools felt like they mattered and supported families as well as students. Parents and carers were made to feel as though they mattered in the way that materials and events were produced with their circumstances in mind. Whether that was video news or flexible annual conferences or whether it was teachers not wishing to be a 'nuisance' by making too many calls on colleagues, there was a sense that everyone mattered. This was a mutually supportive community working flexibly together to support and maintain learning supported throughout by technology.

> *"Sense of mattering may be measured as the extent to which someone feels that he or she is acting generatively or leaving a legacy that will transcend one's self*" (Costin & Vignoles, 2020)

Over this extended period of collaboration there was a considerable quantity of digital material generated for different purposes. This was shared across the school community and much of it will be used after schools return to the classroom. Schools and staff were generative individually and collectively. There remains a visible trace of how they worked together from home and the materials they made alone and together. As such, these digital traces leave a legacy of the achievement of coping and caring during an educational emergency. This is the 'legacy' of these schools which had been facing the educational crisis of the global pandemic.

Belonging

A sense of belonging is recognizable in the literature as an issue of concern during the pandemic evidenced by the number of educational studies published on this topic (Heider, 2021; Mulrooney & Kelly, 2020; Peacock et al., 2020; van Gijn-Grosvenor & Huisman, 2020). A sense of belonging is important for learning, enjoyment, and for a commitment to the continuation of studies (Jetten et al., 2017). Belongingness is a resource for mental health and well-being, particularly during times of shared anxiety and uncertainty (Haslam et al., 2016). Sense of belonging has been equated to feelings of *engagement*, *connectedness*, and *community (*Allen et al*., 2018)*. Mental health and well-being risks applied equally to parents/carers and students (Mulrooney & Kelly, 2020).

The necessity and the possibility for flexible collaboration combined with this mutual inter-dependence amongst teachers was important for developing a shared sense of digital practice both conceptually and visibly. Dialogue and online interaction over a sustained period, created a sense of togetherness. Production of digital content shared online helped to make that relationship visible. At the same time, that sustained interaction helped to overcome disciplinary and hierarchical barriers for collaboration which in turn helped to maintain the educational 'system' of the school. In all these ways, technology facilitated and generated a communal experience which is even more remarkable for participants working largely from home.

Feelings of being accepted, respected, and supported are key indicators of whether individuals feel a sense of belonging (Allen et al., 2018) and this sharing culture, developed out of necessity from a position of physical separation, seems to have promoted a sense of caring, empathy, and mattering. The shared responsibility to be both collaborative and outward facing appears to have promoted belonging amongst staff. Likewise, we argue that the collective digital experience of all stakeholders both affirmed and strengthened the social identity of the school over this extended time. Whether such feelings would arise from a shorter period of collaboration is uncertain and the issue of 'duration' of collaboration warrants further research. Likewise, there were internal and external pressures driving that collaboration which were local, national, and global in nature. Again, further research is needed to understand the variables and their interaction with sense of belonging.

Nostalgia

Time is a key feature of nostalgia. The popular definition of nostalgia is 'a sense of longing for the past' (Lyon, 2021) but nostalgia has also been related to the future providing a source of motivation, optimism, and hope (FioRito & Routledge, 2020). Nostalgic memories often focus upon an idealized self for the future (Bradbury, 2012 in Lyon, 2021) and inform the development of identity. Anticipatory nostalgia involves a longing for what has not yet been lost (Batcho, 2020; Zhou et al., 2020) where people are missing the experience as if it was already gone. Whether individually or collectively, nostalgia prompts a comparison between 'then and now'(Batcho, 2020). Nostalgia connects us to significant moments in time. In both examples, we saw anticipatory nostalgia. The UK case highlighted questions that would be asked in the future about their shared experience. This included the '*if only we could go back*' remark when the interviewee imagined a future yearning for this unique collaborative time when everyone worked as a school-team. The China case saw the head of school emailing from outside the country to say how they would all one day look back on this shared struggle and '*laugh about it*.' We argue that overall, this analysis represents a sense of loss for the collegiality of the educational experience of this period distinct from any yearning for the crisis itself to be repeated.

Emotions are central to nostalgia. Nostalgia generates mixed emotions and is described as a 'bittersweet' emotion invoking both happy and sad responses (Batcho, 2013). Nostalgia often contains happy memories to which we cannot return. The triggers for nostalgia are often *stressful life events and distressing experiences* (Baldwin et al., 2015, in Lyon, 2021). Nostalgia connects us across times, people, places, and objects (Batcho, 2013). We argue that that technology *documented* the shared experience for groups of teachers creating a shared and constantly visible memory in the archive. Combined with the sense that people mattered and belonged, we argue these feelings combined to produce nostalgia as an additional emotional outcome.

Nostalgia is social. Much of what is recalled with happy memories contain moments shared with others (Batcho, 2013). Shared nostalgia involves the communication of nostalgic content to at least one or more other people often to initiate, maintain or develop social connectedness (FioRito & Routledge, 2020) which can raise the value of the group to its members and increase the likelihood of acting in pro-social ways (Wildschut et al., 2014, in Lyon, 2021). As such, nostalgia affirms a sense of social belonging via recollection of moments that matter. The interviewee in China reflected nostalgically upon them having become closer to each other and having '*bonded*' as a school. This was a relatively new school, and the teachers were international and away from their original countries. The shared experience had brought them closer together and colleagues were likened to being *like a 'family'* after this experience. They were helping each other as never before thereby emphasising the relationship between nostalgia and motivation mentioned above. In this case, the experience was memorable for the way they collectively dealt with an educational crisis which was simultaneously local, national, and global. The respondent noted nostalgically how they coped and how they had faced adversity together. It was going to be '*remembered forever*'.

'Digital Collegiality' model

We have shown specific ways in which the technology affected practice in two countries during the pandemic. Based on analysis of these two examples, we argue that technology made the shared experience visible, communal, and flexible during this educational crisis. We extend our analysis by mapping these uses of technology onto corresponding emotional outcomes. Making the experience communal, the use of technology prompted a sense of belonging. Making experience more flexible, using technology, caused people to feel as though they mattered. Finally, the technology made practice visible by documenting their shared experience prompting individual and collective nostalgia.
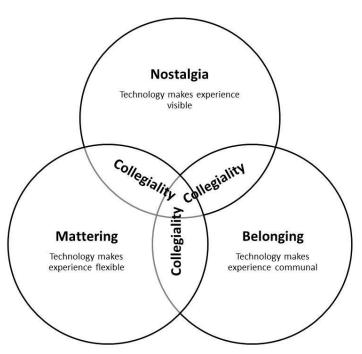
Figure 1:

Digital Collegiality Model

The study complied with the ethical requirements of the University of Derby and was formally approved by the university ethics committee. Participants were emailed consent forms which were signed and returned before the interviews began. These self-selected participants were also briefed verbally and given the opportunity to withdraw. Semi-structured interviews were conducted online via Zoom with the 29 participants recruited. These interviews were carried out in July 2020. Participants were asked about their experiences of the pandemic and of the module.

These applications of technology and the associated emotions constituted a pandemic practice which was largely positive in the way they individually and collectively coped with the educational crisis. In other words, these are emotions resulting from good practice using technology. Figure 1 above shows our emergent model of 'Digital Collegiality' for crisis-situated teaching. This model looks at emotional outcomes of different uses of technology at the departmental or institutional level and therefore gets beyond individual dispositions as individual skills. It should be noted that this model is not held up as generalizable, but it articulates an emergent model of digital collegiality to inform a future research agenda.

Relevance to university education departments

Our Digital Collegiality model developed and presented in this article is the consequence of research interviews with teachers undertaking online postgraduate studies with the University of Derby. As demonstrated in the current article, the university has a pivotal role and capacity to gather empirical data from schools worldwide. Through our globally distributed participants, we employed online research methods to explore diverse and remote school settings leading to an international perspective on collegiality during the pandemic.

These findings and our emergent model are important to university education departments in at least two ways. Firstly, this research will feed into future iterations of our online postgraduate courses. The term 'digital collegiality', reflecting the use of technology to support and design collegiality, will feature in professional conversations with future postgraduate course participants. Secondly, these early findings will feed into future research activity to be published elsewhere in which we relate the current article to other interviews in the sample. This allows us to explore the validity of the emerging model and its value or relevance to other settings.

We go further and argue that this research has potential to support Initial Teacher Education in the way it offers a model and examples of how collegiality can be developed at an institutional level. Our model is derived from school practices during an educational crisis and the activities outlined above can be adopted elsewhere in support of collegiality. For example, student teachers might collaborate on the production of digital content with teachers in other disciplines or they might co-create digital content for parent-school communication. Such

activities may provide a means of intentionally developing collegiality supported by technology. This might be equally applicable for developing collegiality amongst qualified teachers across the school and further research is signposted this way.

Conclusion

In this study, we asked, "what is the role of technology in the affective outcomes of teaching during the pandemic when everyone was at home?" and "Why might teachers feel a sense of nostalgia for a moment of educational crisis?" We explored two examples in which teachers and their schools coped relatively well with the educational emergency such that we might regard their approach and use of technology as illustrative of good collegiall practice. We identified three affective outcomes of good practice during the pandemic which are mattering, belonging and nostalgia. We argue these are symptomatic of collegiality.

We then identified three institutional ways in which technology was used 'successfully' during the first wave of the pandemic. They were the provision of greater flexibility, the creation of a sense of communality, and ways of making practice visible. Again, we argue these are symptomatic of collegiality. We then mapped these uses of technology onto their corresponding emotional outcomes. This resulted in our model of Digital Collegiality which moves beyond a view of emotions and dispositions as a set of individual skills. At the same time, this provides an institutional model at the collective level for how technology applications can be related to and designed for affective outcomes which evidence collegiality. In doing so, we locate responsibility and opportunity for collective wellbeing and collegiality at the department or institutional level when designing learning and support.

That said, this research has weaknesses. We know these examples were exceptions even within a small set of interviews, all of which were self-selected. There is no suggestion made here that these findings or the emergent model of Digital Collegiality is necessarily generalizable. However, we do argue that this framework provides an agenda for further research into the institutional level of technology use as it relates to collegiality. Similarly, we suggest this model offers a possible relationship between technology and affective outcomes at an institutional level which adds to a future research agenda. For those interested in learning design, this emergent model may offer new avenues which look beyond collaborative learning to technology-supported collegiality.

The current article contributes to knowledge about the first wave of the pandemic and experiences of educators in different parts of the world. This research is also useful for the way it explores a sense of belonging from a teacher's perspective and within the online realm of practice. We also raise concerns that the production of a sense of belonging, on its own, may be inadequate to explain the complexities of good practice with technology. In addition, we have mapped institutional use of technology onto emotional responses leading to collegiality. We have generated an emergent model of Digital Collegiality, but further research is needed to explore its value beyond the participants and those contexts mentioned. This work may also warrant further research into the value of the model as a guide for design for digital learning. Finally, the model may also have applications beyond online learning to help enhance inclusion and participation via collegiality.

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